WEED SCIENCE

JOURNAL OF THE WEED SCIENCE SOCIETY OF AMERICA

CONTENTS

Ecological and Control of Musk Thistle. Israel Feldman, M. K. McCarty, and C. J. Scifres Western Whorled Milkweed and Its Control. M. K. McCarty and C. J. Scifres The Leaf Concentrations of Atrazine in Cereal Crops as Related to Tolerance. Heijia L. Wheeler and Robert H. Hamilton	1 4 7
Rate of Weed Elongation. A. F. Wiese	11 13
T. J. Neidlinger, W. R. Furtick, and N. R. Goetze	16 18 23
Herbicidal Action of Molinate in Barnyardgrass and Rice, T. M. Chen, D. E. Seaman, and F. M. Ashton	28
Growth Analysis of Red Maple and White Ash Seedlings Treated with Eight Herbicides. P. W. Perry and R. P. Upchurch	32
I. E. Demoranville N-Glucosyl Metabolite of Pyrazon in Red Beets. S. K. Ries, M. J. Zabik, G. R. Stephenson, and	38
T. M. Chen	40
W. H. Gray Effect and Persistence of Herbicides Applied to Soil in Puerto Rican Forests. Clyde C. Dowler, Wilson Forestier, and F. H. Tschirley	45
Selectivity of Linuron on Tomato and Parsnip. E. J. Hogue and C. F. Warren The Interaction of Diphenamid and Two Soil Fungi on the Growth of Tomato. C. D. Kesner	51
and S. K. Ries	55 58
Gruendling, and Aubrey S. Thomas, Jr. Annual Flower Plant Growth as Affected by Soil-Incorporated Herbicides. R. M. Adamson and J. H. Crossley.	60
J. H. Crossley Residual Monuron, Diuron, and Simazine in a Vineyard Soil. J. H. Dawson, V. F. Bruns, and W. J. Clore	63
Effects of Paraquat on Yield and Composition of a Subclover-Hardinggrass Pasture. Burgess L. Kay	66
Effect of Certain Quinones, Diquat, and Diuron on Chlorella pyrenoidosa Chick. (Emerson strain). G. Zweig, J. E. Hitt, and R. McMahon	69 74
Leaching of Five Thiocarbamate Herbicides in Soils. Reed A. Gray and Andre J. Weierich Factors Influencing the Phytotoxicity and Movement of Paraquat in Quackgrass. A. R. Putnam	77
and S. K. Ries	80 88
D. P. Schultz, and D. E. Davis	86
of 2,4,5-T by Mesquite. Howard L. Morton, F. S. Davis, and M. G. Merkle	88
Raymond A. Evans, and Richard E. Eckert, Jr. Physiological Changes Accompanying the Death of Cocklebur Plants Treated with 2,4-D. J. Cardenas, F. W. Slife, J. B. Hanson, and H. Butler	92 96
Brief Papers:	
Russian Thistle as an Alternate Host to Economically Important Insects. Richard D. Goeden Relation of Triazine Residues to Fungal and Bacterial Colonies. Rodney J. Fink, O. Hale Fletchall,	101 102
and Oscar H. Calvert WSSA Placement Service News Notes	104 106 107

VOLUME 16
JANUARY 1968
NUMBER 1

The Metric System ...

WEED SCIENCE

Issued Quarterly by the Weed Science Society of America

EARL G. RODGERS, Editor, 209 McCarty Hall, University of Florida, Gainesville, Florida 32601

FRED W. SLIFE, Treasurer-Business Manager, Department of Agronomy, University of Illinois, Urbana, Illinois 61801

EDITORIAL COMMITTEE

- W. R. BYRNES, Department of Forestry and Conservation, Purdue University, Lafayette, Indiana 47907
- R. T. COUPLAND, Department of Plant Ecology, University of Saskatchewan, Saskatoon, Canada.
- D. E. Davis, Department of Botany and Plant Pathology, Auburn University, Auburn, Alabama 36830
- C. L. Foy, Department of Plant Pathology and Physiology, Virginia Polytechnic Institute, Blacksburg, Virginia 24061
- K. C. Hamilton, Department of Agronomy, University of Arizona, Tucson, Arizona 85721
- J. B. Hanson, Department of Agronomy, University of Illinois, Urbana, Illinois 61801

- J. L. Hilton, Crops Research Division, ARS, USDA, Beltsville, Maryland 20705
- R. D. ILNICKI, Department of Soils and Crops, Rutgers University, New Brunswick, New Jersey 08903
- W. G. Lovely, Agricultural Engineering Building, Iowa State University, Ames, Iowa 50010.
- R. E. NYLUND, Department of Horticulture, University of Minnesota, St. Paul, Minnesota 55101
- R. A. Peters, Department of Plant Science, University of Connecticut, Storrs, Connecticut 06268
- R. P. UPCHURCH, Monsanto Company, V Building, 800 N. Lindbergh Blvd., St. Louis, Missouri 63166
- A. D. Worsham, Department of Crop Science, North Carolina State University, Raleigh, North Carolina 27607

WEED SCIENCE is a quarterly journal published by the Weed Science Society of America. The subscription price is \$12.00 yearly for four issues; single copies \$3.00.

Address all communications regarding subscriptions and reprints to F. W. Slife, Department of Agronomy. University of Illinois, Urbana, Illinois 61801. All checks, money orders, and other remittances should be made payable to the Weed Science Society of America.

The editorial office is located at 209 McCarty Hall, University of Florida, Gainesville, Florida 32601. Inquiries concerning manuscripts and other materials for publication should be addressed to the editorial office.

Printing is by the W. F. Humphrey Press, Inc., Geneva, New York.

To join the Weed Science Society of America, send remittance of \$10.00, payable to the Weed Science Society of America, to Dr. F. W. Slife, Department of Agronomy, University of Illinois, Urbana, Illinois 61801. Give name, official position (if any), and complete address. Dues are for the calendar year only.

The Conference Members of the Weed Science Society of America (WSSA) and the abbreviations by which they may be designated in its publications, are the following:

Western Society of Weed Science

North Central Weed Control Conference

Northeastern Weed Control Conference

Southern Weed Conference

NEWCC

National Weed Committee of Canada

Entered as second-class matter at the post office at Urbana, Illinois, with additional entry at Geneva, New York.